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1874

SHADOWS

FROM THE

WALLS OF DEATH;

OR, FACTS ABOUT

ARSENICAL WALL PAPERS,

GATHERED BY R. C. KEDZIE,

Member of State Board of Health.

And, behold, if the plague be in the walls of the house, with hollow strakes, greenish or reddish, then the priest shall go out of the house to the door of the house and shut up the house seven days. *

And he shall cause the house to be scraped within round about, and they shall pour out the dust that they scrape off without the city into an unclean place.

Published by the State Board of Health of Michigan.

[Do not use specimens of these poisonous papers, (as is often done) to cover boxes, etc.]

STATE BOARD OF HEALTH, MICHIGAN.

OFFICE OF SECRETARY.

Lansing, Nov., 1874.

J. L. Billings M.D.
Library Surg. Gen's Office Washington D.C.

~~TO THE LIBRARIAN~~

~~By direction of the State Board of Health,~~ I send you ~~by this mail~~ a **Book of Specimens of Poisonous Papers.**

These papers have been collected in this State by Prof. R. C. KEDZIE, a member of the State Board of Health. Each sample has been examined by him and found to contain arsenic.

These books of Specimens are distributed to the leading public libraries throughout this State, in the hope that by so doing the people will be more effectually warned of this source of danger to health, which is believed to be more general than is usually understood by the people.

By giving this book a prominent place in your library, you will further the objects which the Board have in view.

The poisonous nature of the paper of which this book is made will suggest to you the propriety of not allowing it to be handled by children.

Very Respectfully,

HENRY B. BAKER, M. D.,
Secretary.

"SHADOWS

FROM THE

WALLS OF DEATH;"

Facts and Inferences Prefacing a Book of Specimens of

ARSENICAL WALL PAPERS,

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And he shall cause the house to be scraped within round about, and they shall pour out the dust that they scrape off without the city into an unclean place.—*Leviticus*, XIV.

PRESENTED BY THE STATE BOARD OF HEALTH, OF MICHIGAN.

LANSING:
W. S. GEORGE & CO., PRINTERS AND BINDERS.
1874.

ARSENICAL WALL PAPER.

SHALL WE POISON OUR HOMES?

That arsenic is a deadly poison is an admitted fact. When taken internally, in any appreciable quantity, the gravest results are anticipated by all intelligent persons. If a person should thoughtlessly mix arsenic with the food of another person, he would be accused of criminal carelessness; if he were detected in purposely adding it to the food of another, he would be arrested for an attempt to commit murder. But whether a poison is administered in ignorance, by carelessness, or by design, *the effect of the poison is all the same.*

Arsenic may enter the body by other avenues than by the mouth, for it may be absorbed by the skin or inhaled with the breath. The danger for equal doses of the poison is vastly greater when it is inhaled than when it is swallowed, for we take food only at distant intervals, while we breath continuously. Persons engaged in smelting arsenical ores are compelled to use extraordinary precautions to avoid inhaling the fine arsenical dust, on account of the great danger of poisoning by this means.

Perhaps we could not devise a more effectual way to contaminate the air of our homes with a small amount of arsenical dust, than by the use of wall paper colored with arsenical preparations. The large amount of surface exposed, the feeble adhesive power of the size by which the pigments are fixed, the frequent alternations of heat and cold, moisture and dryness, by which the adhesiveness of the size is still more diminished, the currents of air always circulating in a warm room, mechanical displacement by sweeping, dusting, etc., all combine to dislodge the pigments from their position on the paper, and to scatter them in the form of a fine dust in the room, and this dust may be many hours or even days in settling.

That the air of every inhabited room is filled with finely divided particles of matter is clearly seen when a ray of sunshine is admitted into a darkened room. That this dust contains arsenic when the walls are covered with arsenical paper, has been demonstrated by analysis of the dust which had settled on the furniture. This suspended dust is swept along with the air in inhalation, and is lodged upon the mucous surface lining the nasal cavities, the windpipe and its ramifications. The mucous surface of the air passages is as truly an absorbing surface as is the mucous surface of the alimentary canal. Arsenic applied to any absorbent surface, besides being taken into the general circulation and producing constitutional effects, may produce a local inflammation in the surface to which it is applied. This may explain the frequent occurrence of catarrh and bronchitis in those persons who occupy rooms papered with arsenical wall paper.

In connection with these local diseases, symptoms of a more profound and alarming nature may present themselves, showing that the constitution is becoming undermined. Dyspepsia, neuralgia, pains in the bones and joints simulating chronic rheumatism, headache, general debility, etc., are symptoms which often attend this form of chronic arsenical poisoning; for arsenic may show its deadly power not alone by sudden and violent destruction of life in acute poisoning, but it may take on the forms of many chronic diseases. Thus the constant cough, loss of flesh, depression of spirits and general failure of the vital powers may lead the person to fear that pulmonary disorder of an alarming type is threatened. How many women have thus "gone into a decline," I will not venture to guess. Perhaps a consideration of the "delicate state of her lungs" leads her to confine herself to her room, and the fear of "taking cold," to avoid all ventilation; and thus she breathes constantly an air loaded with the breath of death. Possibly, by advice of physician or friends she "travels for her health," or visits some medicinal spring. By this prolonged absence from the cause of her illness, she regains her health in some degree, and returns home confident that the "change of climate," etc., were the cause of her improved health. But a return to the old home brings back, after a time, all the old symptoms. Perhaps she may abandon all hope of complete recovery, shuts herself up to avoid all possibility of "taking a fresh cold," and finally succumbs to consumption,—a consumption of arsenic in every breath she inhales!

I would not lead any one to suppose that every case of consumption or of chronic disease springs from arsenical poisoning, but I verily believe that the picture I have drawn, has its corresponding reality in too many homes in our land. If so deadly a cause of disease, and one so easy of removal, lurks in our homes, it is well to call public attention to it, not only for the recovery of those now sick, but also for the prevention of future illness of those now well.

WHO IS RESPONSIBLE?

The question naturally arises, who is responsible for this dangerous use of poisonous colors in wall paper? I think the retail dealers, for the most part, are innocent in this matter, for most of them are ignorant of the composition of the coloring matter, and are not aware of the danger of its use. When their attention has been called to the subject they have expressed surprise that such materials are used, and a determination to avoid buying any more of such dangerous material. But the manufacturers cannot enter a plea of gnorance, for they know the materials employed and the danger of their use. Dr. Draper, in the Report of the State Board of Health, of Massachusetts, states that a paper printer cannot work more than two or three weeks at a time with arsenical pigments; he must then change his work to enable him to sufficiently recover his health to again begin printing in arsenical colors.

THE DANGER IS INCREASING.

The danger arising from the use of arsenical wall paper is increasing. Good taste revolts at the use of wall paper with strongly marked colors and sprawling bouquets, but is gratified with toned papers in subdued colors. A delicate shade of pea-green satisfies the eye much better than a blank white wall. These toned papers, with no figures, or only a delicate tracery of vines and flowers, are becoming very fashionable, because very beautiful. There is not in commerce a green paint so beautiful and unfading as the aceto-arsenite of copper. When mixed with other colors in toning it still gives a clear and fresh color. The temptation for the paper printer to use it is very strong. It is often used to give a delicacy to the shading where the unpracticed eye would fail to detect any shade of green. This arsenical green is too costly to be used in the ground-work of cheap paper; in these the green ground-work is usually a vegetable color, and the arsenical green is usually employed to imitate leaves of plants, vines, etc., or in printing

bright stripes of green, and is then readily detected by the eye. But in toned paper the arsenical green is often so disguised by combination with other colors as to escape notice, and the danger is increased by the fact that the whole surface of the paper it spread with the poison.

A short time since I examined the specimen book of one of the largest wall-paper houses in this country. Many of these papers were very beautiful and very dangerous, for the arsenical colors were freely used in their toning. The agent jocosely asked me to write a puff for his house. I told him that if he would give that book of specimens I would analyze each paper and write a puff of his house that would go into every paper in the country! The agent declined with thanks. Yet these deadly papers are offered for sale in every city and important village in our State, and their use will become more general unless an enlightened public sentiment shall banish them from our homes, or the Legislature by law shall hold the shield of its protection over the heads of our people. But any legal enactment on this subject, not sustained by an enlightened public sentiment, will remain a dead letter upon the statute book. To awaken such a public sentiment, to call attention to this source of danger, and to assist persons in detecting these dangerous colors in wall paper, the State Board of Health directed me to prepare specimen books of such dangerous wall papers, to be placed in every important library of our State. The wall papers in this book all contain arsenic; they were selected from stores in Lansing, Detroit, and Jackson, and were all on sale in these cities. The attention of a health loving public is respectfully called to them.

THE DANGER IS REAL.

To show that the danger from using arsenical wall paper is no figment of the imagination, I present a few cases that have recently occurred in this State, which will illustrate the influence of such wall paper.

CASES OF POISONING.

1. Dr. I. H. B., Lansing, member of House of Representatives for this district in 1873, and his two boys. The Doctor's bed-room was papered with wall paper of a grayish color, toned with green, and had a few bright green flowers or leaves. His boys occupied a bed-room next to his, and the door between the rooms was open at all times. The doctor was troubled with severe pains in the bones,

symptoms of chronic rheumatism, and constant cough. The boys became affected with pains and rheumatic soreness. Suspicion was aroused that the wall paper might be the cause of this illness, and the paper was analyzed, when it was found to contain 5.47 grains of arsenic to each square foot, or six ounces of arsenic on the walls of a single room. The paper on the wall did not look faded, but on comparing a fresh piece of paper with that on the walls, the Doctor declared that half of the coloring material had disappeared. If his estimate was correct, then an ounce of arsenic had been set free in his bed-room, in the form of fine dust, every six months.

The wall paper was at once removed, and the Doctor and his boys have entirely recovered.

2. The children of Hon. L. D. W., of Manchester, formerly State Senator. Emma, aged 9, occupied a bed-room the walls of which were covered with paper of a greenish stone color, with bright bands of green. Soon after occupying the room she exhibited the following symptoms: Lameness resembling rheumatism, darting pains in various parts of the body, languor in the morning, feverishness, pains in the head and frontal sinuses, sores in various parts of the body, faint spells, turning white about the mouth, and great loss of flesh. The best medical advice that could be procured was obtained, but no essential improvement followed. Whenever she left home for a time her health improved, but she relapsed into her former condition on returning home.

The paper on the wall was analyzed and found to contain 4.87 grains of arsenic to the square foot. Emma was removed from the room and entirely recovered her health.

Last fall the son, Herbert, aged 6, was allowed to occupy the same room. In a short time all the distressing symptoms which afflicted Emma were developed in Herbert. He was removed from the room and entirely recovered.

3. Mrs. J., of Saginaw, occupied a room, the paper on the walls of which had bright green figures. She had been an invalid for some time, had traveled for her health, which always improved when away from home, but she always relapsed on returning home. She particularly observed an increase of her unpleasant symptoms after sweeping or dusting her room. The wall paper was analyzed and found to contain one-half of a grain of arsenic to the square foot. The paper was removed from the walls at once. A short time ago I received a letter from her physician, Dr. L. W.

Bliss, in which he says: "Since removing the paper, and re-papering with paper free from *green*, Mrs. J. is free from headache, loss of appetite, and neuralgic pains, all of which she had before except when away from home for some time."

4. Mr. H., a prominent lawyer of Mason, had his house papered with wall paper, which contained a considerable quantity of green Soon after, Mrs. H. and all the children passed into a condition of continued ill-health. The time of the commencement of this poor health was so nearly identical in all the cases, and the symptoms were so similar, that Mr. H. was convinced that there was some common cause operating on his family to cause this mysterious sickness; but he was not able to find any thing in the condition of his home or its surroundings which would explain it. When examining the Report of the State Board of Health, his attention was called to poisonous wall paper as a possible cause of ill health. The wall paper in his rooms was analyzed and found to contain 1.88 grains of arsenic to the square foot. The paper was at once removed from the walls and Mrs. H. and the children have recovered their usual good health.

5. On the 3d of July I received the following letter:

SPRINGPORT, Jackson Co., July 2d, 1874.

R. C. Kedzie, M. D.:

DEAR DOCTOR—A case of sickness and death took place here, not long since, under peculiar circumstances. I was not the attending physician, but having an acquaintance with the family, I inquired into the case. I found the child, aged about ten years, had complained for some time of wandering pains in her limbs, back, etc., was pale and fretful, and at last they called in a Doctor, who pronounced it a case of "spinal fever." In a day or two they called a council of Homeopathic Doctors, who diagnosed "rheumatism of the heart." She was sick but a few days, when she died. I called upon the family, when I observed that the walls in nearly every room were covered with green paper, of the shade which I send you. It may be well to state that the other members of the family enjoy very poor health.

"After reading an article in my journal, I thought I would obtain a specimen of the paper for analysis, and for that purpose I send these specimens. Please let me hear your report. I am with much respect,

"Yours truly,

"L. A. FOOTE."

By analysis arsenic was found in both specimens of paper. I afterward learned from Dr. Foote that one specimen of paper was from the bed-room occupied by the girl, and that this paper had been on the walls about two years. There was not enough paper sent to make a quantitative analysis. The other paper was from the room next to the girl's room, and was put on last spring. It contains 1.16 grains of arsenic to the square foot. A specimen of

this paper is bound up in the book of specimens, being the first specimen leaf of the book.

These are not all the cases which have come to my notice, but they may be regarded as representative cases, and are sufficient of themselves to arouse the attention of all who love life and hate death.

REMEDY.

The question how to avoid such dangers becomes an important one. A sweeping rule may be given by saying *use no wall paper of any kind.* If persons dislike the naked white wall and are not satisfied with kalsomining (which may be tinted of any hue desired) the walls may be frescoed or painted to suit the taste. The oil will fix any color upon the wall in such manner as to obviate all danger of the color dusting into the room.

If wall paper is used, BE SURE THAT IT IS FREE FROM ARSENIC IN ANY FORM. *Test the paper for arsenic before you use it, and if the poison is present in any quantity, reject it entirely.* The means of testing the paper may be found in any drug store in the State.

If arsenical paper is already on your walls and if, for any reason, you do not wish to remove it, the paper should be varnished with a thin and transparent varnish, to securely fix the pigments on the paper. It will usually be cheaper to remove the paper entirely, and to replace it with paper free from poison, than to varnish the old paper.

METHOD OF TESTING.

The green arsenical colors are readily soluble in ammonia water. If a little ammonia water poured on the paper discharges the green color, or produces such a change in the color as indicates the removal of green, the paper should be rejected, as it probably contains arsenic. To identify the presence of arsenic in any paper, wet the paper with ammonia water, pour off this water on a clean piece of glass and drop into this a crystal of nitrate of silver, or a small piece of lunar caustic. If a yellow precipitate forms around the crystal it indicates the presence of arsenic.

In behalf of the State Board of Health,

R. C. KEDZIE,

Chairman of Committee on Poisons, etc.

AGRICULTURAL COLLEGE, LANSING, Sept. 26, 1874.

SHADOWS

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BEING

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In behalf of the State Board of Health,

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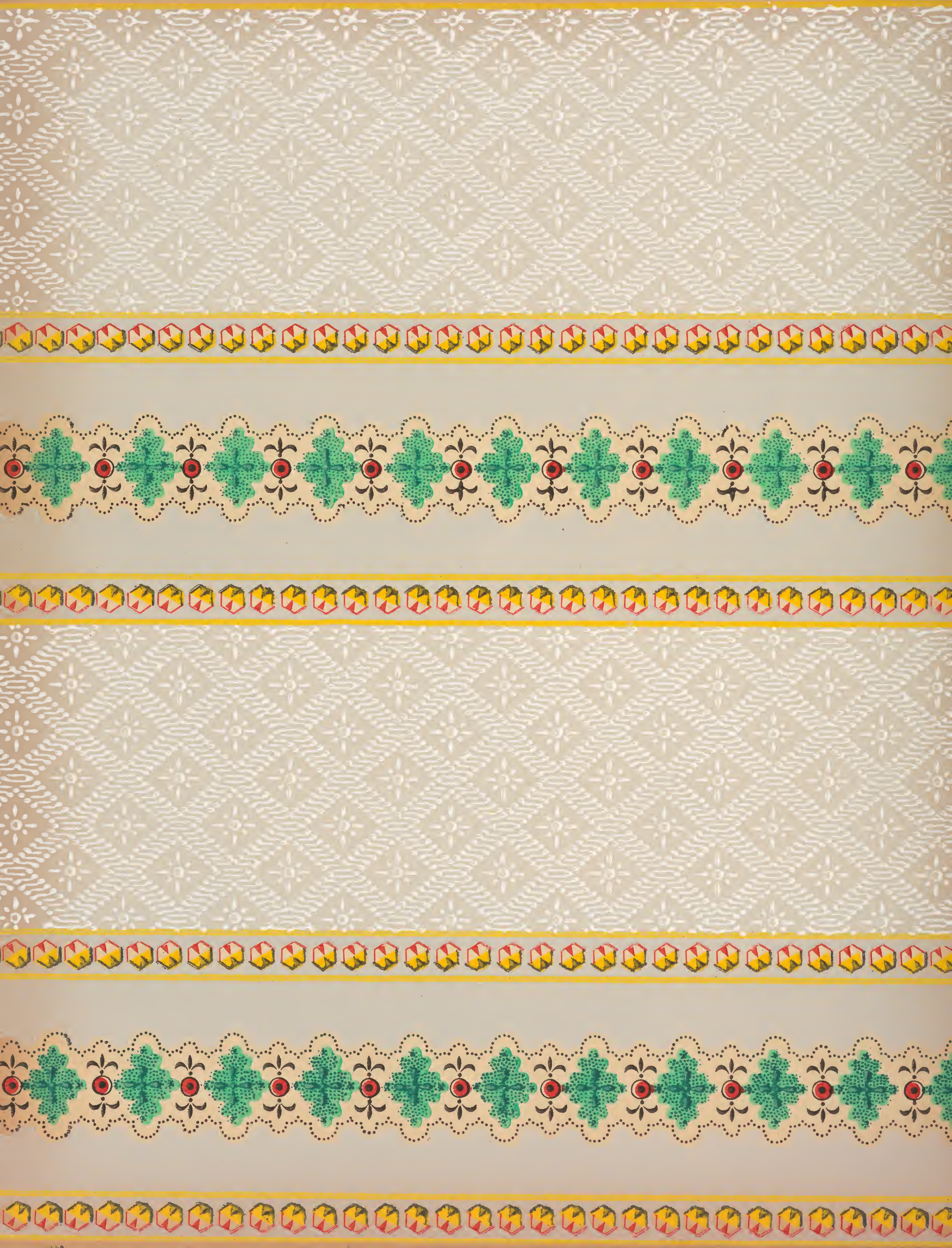
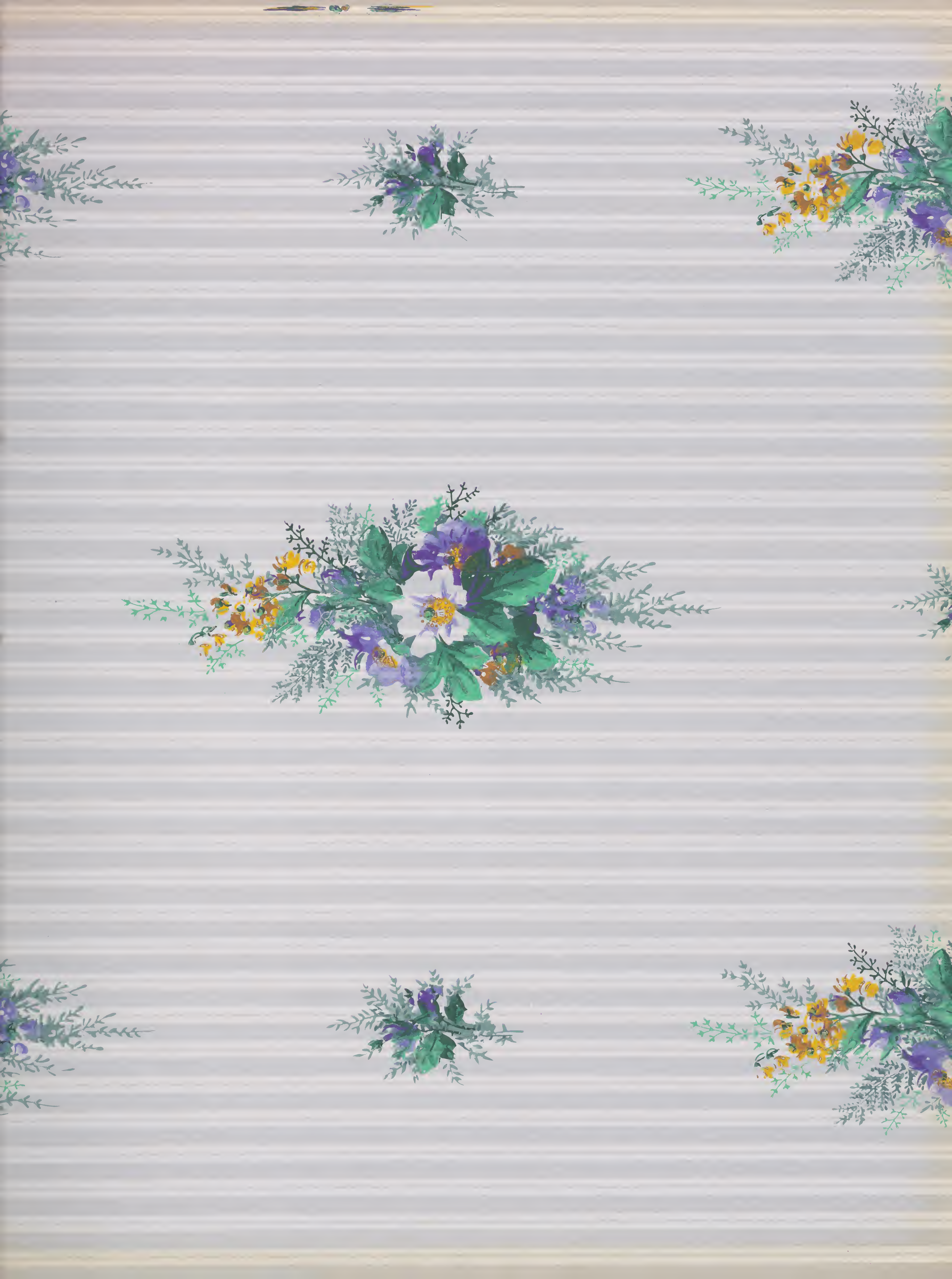
AGRICULTURAL COLLEGE, LANSING, Sept. 26, 1874.

715 | 2. Rolls





S 20 2 Rolls.

2 Rolls.

883

2. Rolls.

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